

MONTREAL.

(Correspondence of the CANADIAN ARCHITECT AND BUILDER.)

MONTREAL SEWERS—CONTRACT VS. DAY WORK.

NOTHING further has transpired since your last issue regarding the construction of sewers by contract or by day's work. The question has been once or twice brought before the Committee, and the Chairman of the Road Committee seems determined that he will yet succeed in having the sewers constructed by contract, rather than by his department under "day's work." Many owners of real estate are inclined to side with him on this point, while the majority of the Council still stick to having the work done by the road department themselves. In my opinion there is lots of work, such as street repairing, sidewalk, flag stones, crossings, gullies and general repairs, that would take all the attention of the Road Department, without meddling with the construction of such a simple matter as the sewers themselves. If the sewers cannot be constructed by contract, then no work can be constructed by this method. If there has been, as stated, any defective work constructed by contract for the city, the fault lies with the inspectors who are supposed to be daily on the work to see City Surveyor's instructions carried out. If the authorities instead of wrangling over the construction of sewers by contract or day's work, would place the whole responsibility on the City Surveyor and give him *carte blanche* to employ competent inspectors at a fair remuneration, instead of compelling him to employ friends of the influential adherents, who are generally broken down tavern keepers or friends of political wire pullers, better results might be expected. As long as this system exists, how can we expect to get good work done? Even the mechanics themselves will rebel against having their work inspected by men who are totally incompetent.

MOUNT ROYAL INCLINED RAILWAY.

The directors of the Mount Royal Inclined Railway Co., have decided to extend their lines down to Park Avenue at once, and have instructed Mr. W. McLea Walbank to prepare the necessary plans and specifications and take thereby for carrying out the same.

Capt. Jas. Wright, Mechanical Engineer, is preparing the plans and specifications for the boilers and engines to create the motive power for the same.

The work will begin immediately, and it is expected that by the middle of August the cars will be running. There will be a double track 4 feet 8½ inches gauge, with the motive power at the upper end of the incline, which is about 1 in 12, and the cars will be drawn by steel wire cables, with a platform at or near the Golf Club House. The city has promised to grade and macadamize a carriage road to connect with the street railway, a distance of about 400 feet.

The passengers will have to change cars at the foot of the present incline. Owing to the great difference of altitude between the two railways, it would be impossible to run the same car over the two lines. This, however, under the present circumstances is not an objection, as the present terminus will be a very convenient one for passengers coming by the way of University St., and the new platform will be used by those coming by Park Avenue.

The new railway carries twice as many passengers as the existing one, but takes twice as long to make the trip, therefore the upper road will be clear in time for the arrival of the second train. The present incline makes its trip in 45 seconds.

MONTREAL STREET RAILWAY.

Complaints are loud against the running of our street railways. The Council have at various times ordered a detective to watch them to see that they keep up to their time table, but through some unforeseen reason they have not been able to catch them. The tracks are also very much out of repair, and hardly a day passes without some vehicle coming to grief. One would hardly think that a town of the size of Montreal would put up with the tracks constructed such as ours are.

BOULEVARDS.

A petition has been sent in to the City Council by residents owning property on the east end of Mount Royal Park, offering to cede 20 feet of ground to the city, provided the city gives an additional 20 feet and makes a boulevard from St. Jean Baptiste St. to Mount Royal Avenue. The Council are likely to accept, provided the proprietors will agree to build all their houses facing the park, and promise not to build any stables or sheds on the boulevard.

THE BUILDING INSPECTOR.

The city of Montreal has a Building Inspector. It has also a by-law regarding the construction of buildings within the city limits. Either the Building Inspector does not attend to his duties or the by-law is very defective, for I notice that on St. James St., our principal thoroughfare, there is at present in course of erection an additional story to a building occupied by the Bishop Engraving Co. which would be a disgrace to the smallest village in the Dominion, to say nothing of the "commercial metropolis." I do not know if the Building Inspector's attention, as been drawn to it, or how he interprets the by-law, but according to my interpretation, "it is contrary to law to erect a wooden building without casing it with brick." Even casing it with brick is bad enough, but when we see a fire trap, (such as this undoubtedly is) erected on a principal street, it is no wonder the citizens ask, "what is the use of Building Inspectors and by-laws if both are put at defiance?"

BUILDING NOTES.

There has been quite a noticeable improvement in the building trade during the past month. Contracts are open for the following buildings: The extension to the Merchants' Cotton Factory, two houses for Dr. Hingston on Sherbrooke St., a house for R. J. Tooker, Peel St., a cottage for N. White, Quiberon St., a Methodist Church on St. Catherine St. west, and several buildings on St. Lawrence Main St., a house for H. Brodie on Dorchester St. west, a warehouse on St. Patrick St., for Messrs. A. W. Morris & Bro., the celebrated cordage, jute and binder twine manufacturers, consultation rooms and dwellings on St. Catherine St. for Dr. Buller, and block of houses on Bishop St. for Mr. Whitley, house for Peter Lyall on same street, house on Peel St. for Mr. E. F. Mosley, one adjoining same for W. McLea Walbank, architect.

Preparations have commenced for the widening of Bagby St., which will cause the demolition of several houses, and will doubtless tend to induce owners to build new and improved dwellings on the new line of street.

PENCILINGS.

The City Council have been unable to decide upon an assistant to Mr. B. D. McConnell, superintendent of the water works. The matter has been shelved for a time at least, by a resolution of the Council ordering the candidates to undergo an examination, but it is questionable, even if this is done, whether the Council would then accept the candidate recommended by the examiners. I understand that the Council have been pretty thoroughly canvassed and their votes promised to one or other of the ten candidates. It is really too bad that valuable time should be lost and the city suffer because the Council cannot agree among themselves upon a suitable official to assist the superintendent.

It is said the City Council will vote \$1,000,000 towards the prevention of floods.

The Warren Scarf Co. have commenced laying their patent asphalt on Notre Dame Street. It is to be hoped they will not crown it so much as James Street, thereby making it slippery for horses.

STRENGTH OF PLASTER.

THE extraordinary forces of adhesion, etc., of the Paris plaster enables the work on ceilings or partitions to be executed with far less expense of lathing than similar works executed with our lime and hair. Rondelet made experiments to ascertain the limits of these forces, and he obtained the following results. A parallelepiped of plaster, with a base measuring one inch each way, supported a weight of 765 lb., acting so as to tear it asunder. This he called the force of adhesion. Similar figures resisted a crushing weight of 725 lbs.; so that the ratio of the resistance of plaster to an effort of traction compared to one of extension is as 1 to 9½. Rondelet found that there was a sensible difference in the manner in which plaster adhered to brick or stone, from the action of mortar under similar circumstances. For when cubes joined by the respective materials were subjected to forces tending to tear them asunder, the mortar broke through the centre of the joint, leaving particles attached to the upper and under surfaces. Plaster, on the contrary, left the surfaces perfectly clean. In new works the plaster adheres to other materials with about half the force necessary to tear it asunder. Mortar, for several years at least, only attains one-third of the same force. This ratio does not continue, for after ten to twelve years the plaster loses its strength, while, at the same epoch, we find the adhesion of the mortar to other substances to be equal to the force of adhesion of the cubes themselves. The subsequent ratios are in inverse progression. Mortar always hardens by time; plaster loses its strength. As these remarks only apply to its use as a mortar externally, it should never be employed permanently for such positions. Internally the loss of strength is not so rapid, for it depends upon the absorption of moisture from the atmosphere. For temporary works, for internal works, requiring great rapidity of execution, however, the use of Paris plaster is invaluable.

The new cantilever bridge which is to be erected across the St. Lawrence at Quebec to connect the Intercolonial and Canadian Pacific Railway systems will be of gigantic dimensions. The width of the St. Lawrence from shore to shore at Quebec is about 4½ miles, and the total length of the bridge, with approaches, will be nearly 6½ miles. Two main piers are to be constructed of solid granite in forty feet of water, about 500 feet from each shore. These two piers are to support a cantilever of a span of 1,449 feet. The tops of the bridge from high-water mark will be 408 feet.

PERSONALS.

The estate of the late Wm. Davis, contractor, of Ottawa, is valued at \$767,000.

Mr. R. McLenn Charlton, architect, of Toronto, has opened a branch office at West Toronto Junction.

Mr. S. G. Curry, of the firm of Darling & Curry, architects, Toronto, is holidaying in the health-giving clime of Muskoka.

Mr. W. M. Garthshore, Secretary of the McClary Manufacturing Company, London, has returned from a very successful business trip to the Pacific coast.

Mr. Edward Leonard, a well-known contractor, of St. Catharines, Ont., died very suddenly of heart disease in that city on the 7th inst. He was a member of the firm of Smyth, Leonard & Mumford.